

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

#### PATENT CLAIMS

We claim:

1. ~~(Currently Amended)~~ A circuit ~~Circuit~~ for producing said ~~galvanically~~ separated synchronization impulses (sync) from an AC mains, characterized in that wherein the line voltage rectified by means of a said ~~half-wave~~ rectifier ( $D1$ ), lies on a said voltage divider ( $R1, R2$ ) for the switching input of a said ~~semiconductor~~ switch ( $T1$ ), and the said an emitting diode of a said an optocoupler ( $OKO$ ) lies in the a working branch, whereby the working branch has, in series with the said ~~emitting diode~~ ( $DO$ ) a said ~~drop~~ resistor ( $R3$ ), via which a said ~~storage~~ capacitor ( $C2$ ) can be periodically charged and can be discharged via the said ~~emitting diode~~ ( $DO$ ), and at least one said ~~transistor~~ ( $T2, T3$ ) is arranged downstream of the said a receiving element ( $EO$ ) of the said ~~optocoupler~~ ( $OKO$ ), which is fed by a said ~~voltage~~ source ( $Ub$ ) that is galvanically separated from the line voltage and in whose load branch the ~~essentially rectangular~~ synchronization impulses (sync) are available.
2. (Currently amended) ~~Circuit~~ The circuit in accordance with claim 1, characterized in that wherein the semiconductor switch is a said ~~transistor~~ ( $T1$ ).
3. (Currently amended) ~~Circuit~~ The circuit in accordance with claim 1 or 2, characterized in that, wherein a said ~~voltage-limiting~~ Zener diode ( $D2$ ) lies parallel to the said ~~storage~~ capacitor ( $C2$ ).
4. (Currently amended) ~~Circuit~~ The circuit in accordance with one of the claims claim 1 through 3, characterized in that, wherein the series connection of the said ~~drop~~ resistor ( $R3$ ), the said ~~emitting diode~~ ( $DO$ ) and a said ~~current-limiting~~ resistor ( $R4$ ) lies in the working branch of the said ~~switch~~ ( $T1$ ), whereby the said ~~storage~~ capacitor ( $C2$ ) lies

parallel to the emitting diode-current-limiting resistor-switching junction series connection.

5. (Currently amended) ~~Circuit~~ The circuit in accordance with claim 4, characterized in that wherein a said-resistor (R5) lies parallel to the said-emitting diode (D0) for defining the potential.
6. (Currently amended) ~~Circuit~~ The circuit in accordance with ~~one of the claims 1 through 5,~~ characterized in that claim 1, wherein a said-filter capacitor (C1) lies parallel to a said resistor (R2) of the input voltage divider, which lies parallel to the base emitter junction of the said-input transistor-(T1).
7. (Currently amended) ~~The circuit~~ Circuit in accordance with ~~one of the claims 1 through 6,~~ characterized in that claim 1, wherein the said-transistor (T2) arranged downstream of the said-receiving element (E0) is a Darlington transistor.
8. (Currently amended) ~~Circuit~~ The circuit in accordance with ~~one of the claims 1 through 7,~~ characterized in that claim 1, wherein another said-transistor (T3) for phase reversal is arranged downstream of the said-transistor-(T2), which is arranged downstream of the said-receiving element (E0) of the said-optocoupler-(OK0), whereby the synchronization impulses are available at the said-working resistor-(R8).
9. (New) The circuit in accordance with claim 2, wherein a voltage-limiting Zener diode lies parallel to the storage capacitor.
10. (New) The circuit in accordance with claim 2, wherein the series connection of the protective resistor, the emitting diode and a current-limiting resistor lies in the working range of the switch, whereby the storage capacitor lies parallel to an emitting diode-current-limiting resistor-switching junction series connection.

11. (New) The circuit accordance with claim 3, wherein the series connection of the protective resistor, the emitting diode and a current-limiting resistor lies in the working range of the switch, whereby the storage capacitor lies parallel to an emitting diode-current-limiting resistor-switching junction series connection.
12. (New) The circuit in accordance with claim 2, wherein a filter capacitor lies parallel to a resistor of the input voltage divider, which lies parallel to a base emitter junction of the input transistor.